SMART Agentic AI Software for Simplification of Technical Documentation and Training

- Artificial Intelligence and Natural Language Processing
- ASD-STE100 Simplified Technical English (STE)
- Aerospace and Defense S1000D publishing
- Automated Language Translations

SMART
COMMUNICATIONS, INC.

Complexity to Simplicity

SMART AI Software and Digital Publishing Services

- Experts in ASD-STE100 Simplified Technical English (STE)
- Design of technical publications for mobile devices
- Technical Writing Services, Consultation, Writer Training, ITAR audits
- Text Mining, Electronic Publishing (.xml), Natural Language Processing
- Safety Management Systems, Six Sigma Quality Standards
- Software tools for S1000D, ATA iSpec 2200, Mil. Spec., Artificial Intelligence (AI)

Complexity to Simplicity
The SMART team has 20+ years experience with the successful implementation of STE programs for a product or service.

ASD-STE100 Dictionary and Custom Dictionaries
The ASD-STE100 Simplified Technical English (STE) standard is issued by the Aerospace, Security and Defence Industries Association of Europe (ASD). This global standard provides a "*core*" vocabulary of 985 common words for aerospace maintainers. Companies add their technical terms to create a **custom dictionary**. A typical custom dictionary has approximately 8,500 technical terms.

SMART Language Engineering Services
The SMART team uses the **SMART Text Miner** to develop the custom dictionaries and synonym lists. This software tool identifies hidden terminology, duplicate terms, idioms and ambiguous terminology. These knowledge assets are used in the **MAXit Checker,** eLearning tools, Help Desks, machine translation, Natural Language Processing (NLP), AI Prompt engineering and terminology standardization.

The MAXit Checker
Our **MAXit Checker** uses approximately 19,000 AI rules (*inferences*) and custom dictionaries to validate texts for STE compliance. The **MAXit Checker** is a plug-in to Adobe FrameMaker, Microsoft Word, PTC Arbortext Editor (.xml), XMetaL and RTX EAGLE. The **MAXit Checker** can share custom dictionaries in the Cloud for terminology standardization and global collaborative authoring. *See features on next page*. Our **MAXit Starter Kit** makes the implementation of STE programs fast and simple.
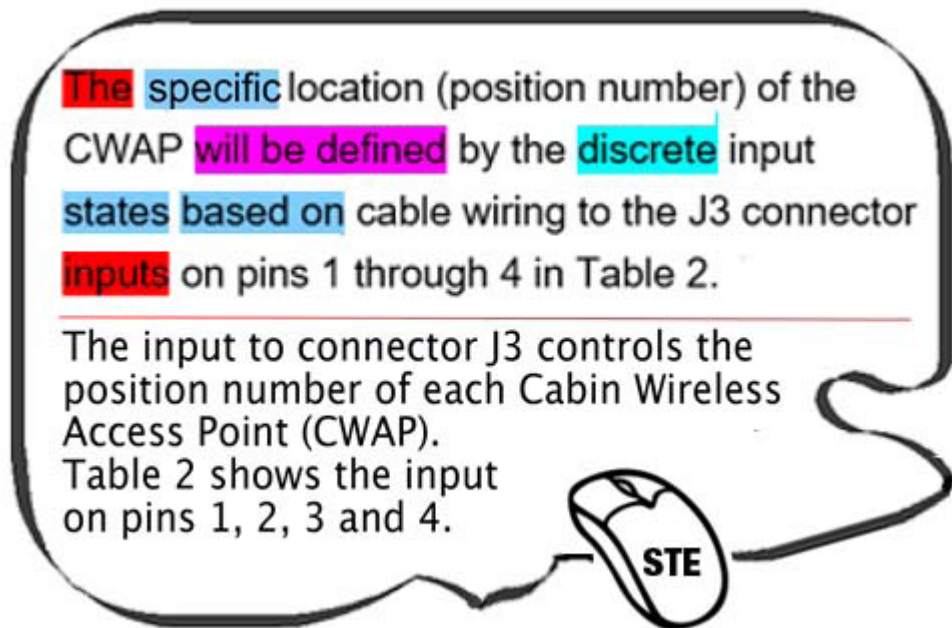
The SMART Lexicon Manager

The **SMART Lexicon Manager** is a companion program to the **MAXit Checker** to manage the custom dictionaries. The program is designed for use by non-linguists. There are two *easy-to-use* data entry screens that let users add, change or delete an entry in seconds. The program has functions to create word lists, reports and view the content of the dictionaries.

Simplified Technical English

The text below shows the *original* procedure for an aircraft in-seat infotainment system. The **MAXit Checker** reads the text and marks errors in grammar, syntax, style and compliance to STE. **MAXit Checker** shows the errors in seven colors for visual clues. The writer clicks a color to see contextual suggestions for in-place editing and corrections.

The specific location (position number) of the CWAP will be defined by the discrete input states based on cable wiring to the J3 connector inputs on pins 1 through 4 in Table 2.

The input to connector J3 controls the position number of each Cabin Wireless Access Point (CWAP).
Table 2 shows the input
on pins 1, 2, 3 and 4.

Features of the MAXit Checker
- Checks abbreviations in long and short form.
- Makes full-sentence grammatical analysis.
- Processes text by <tag>, text selection, paragraph, table cell or document.
- Suggests valid STE verbs and terms for errors.
- Shows terms that are NOT FOUND in the dictionaries.
- Creates six sigma QA and readability reports.
- Navigates hypertext links and references.
- Marks nice-to-know text that can be removed.
- Marks awkward and complex English.
- Checks sentence length, 21-24 words.
- Checks subject agreement, noun to verb.
- Marks gerunds (-ing) that cause legal problems.

- Navigates HTML, XML and .dita codes.
- Marks language that can cause a risk or failure.
- Marks words that have the wrong meaning.
- Matches to preferred spelling and style.
- Identifies problem phrasal verbs and prepositions.
- Marks wrong prefixes and suffixes (non-, -ize, -ness).
- Marks apostrophes and possessives.
- Identifies and marks technical jargon for correction.
- Marks all gender pronouns.
- Marks passive voice to convert to active voice.
- Marks nouns incorrectly used as verbs.
- Marks word clusters that cause translation problems.
- Suggests where to insert definite (the) articles.
- Includes a Metric Conversion tool.

The SMART team has successfully adapted STE, with modifications, to these industries: Automotive, Autonomous and Electric Vehicles, Mining Machines, Aerospace (Drones), Wind Power, SatCom, Cyberspace, Banking Software, Finance, Civil Engineering, Semiconductor Manufacturing, Education, Law Enforcement, Healthcare, Medical Devices, Telecom 5G and Satellite Navigation, Hydrogen Fuel Cells, Pharmaceuticals, Robotics, Process Control, Oil and Gas, Software Engineering, Information Technology and Consumer Electronics. The Smart Plain English version is used by Federal and State Government agencies to comply with Plain Language and Limited English Proficiency (LEP) laws. The US Department of Defense mandates STE and ITAR compliance.

The Company

Smart Communications, Inc., New York, is an Artificial Intelligence boutique with 20+ years experience in software development. Our expertise is in Artificial Intelligence (AI), Natural Language Processing (NLP) and language engineering for publishing systems. Our Agentic AI can **SIMPLIFY** complex technical information for easier comprehension of procedures. The objective is avoidance of human error.

The SMART team developed early versions of Controlled English for Nortel Networks to simplify telephony software documentation. These manuals required six sigma accuracy. The company was an early user of *ASD-STE100 Simplified Technical English (STE)* that is now mandated by the FAA at airlines, aerospace and defense companies.

The SMART team has partnerships with Microsoft, IBM, Nvidia, Adobe and PTC to link to their professional publishing systems. The SMART team includes technical writers, software engineers, linguists, eLearning training specialists, technical translators, data scientists and electronic publishing consultants.

Special Skills in Global Aerospace and Defense

Our SMART team understands S1000D (MRO manuals), S3000L (Logistics), Aviation English (Flight Operations and Drones), Military Standards, .XML, .dita, ASD-STE100, ATA iSpec 2200 and ITAR. Defense industry clients are US Army, US Navy, USAF, BAE Systems, Northrop Grumman, RTX, Airbus, Boeing, Leonardo (USA), Honeywell, Safran Power and Lockheed Martin.

MAXit Checker is Agentic AI

The **MAXit Checker** uses *Natural Language Processing (NLP)* that helps technical writers write procedures in ASD-STE100 *Simplified Technical English (STE).* This controlled vocabulary decreases the risk of human error and miscommunication in aircraft maintenance information. The results are clear, concise, accurate and easy-to-read instructions for users in 149 countries.

Contact Information:

Smart Communications, Inc.
641 Lexington Ave., 13th Floor,
New York, NY 10022 USA
info@smartny.com

Tel: +1(212)486-1894

www.smartny.com